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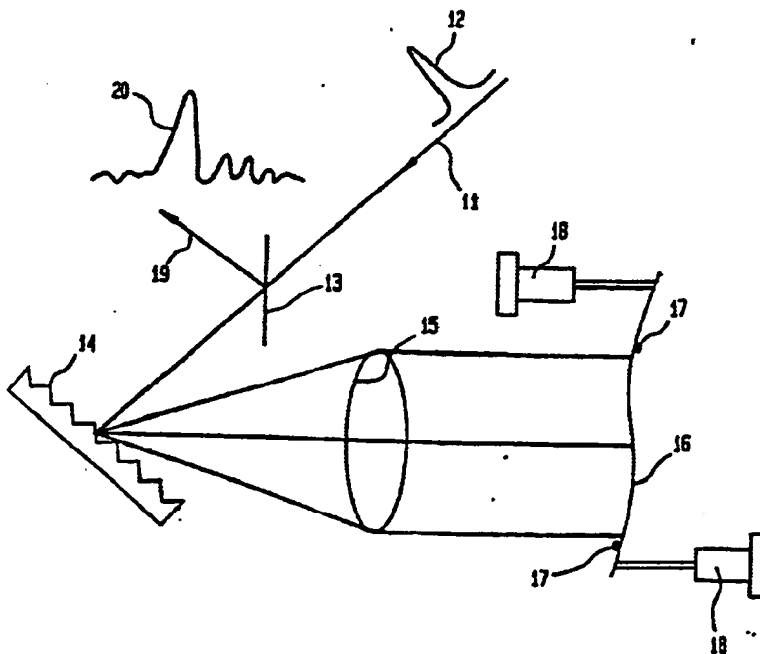
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<p>(21) International Application Number: PCT/US92/01627 (22) International Filing Date: 28 February 1992 (28.02.92) (30) Priority data: 667,033 11 March 1991 (11.03.91) US (71) Applicant: BELL COMMUNICATIONS RESEARCH, INC. [US/US]; 290 West Mount Pleasant Avenue, Livingston, NJ 07039-2729 (US). (72) Inventors: CHASE, Eugene, Waite ; 209 Pelican Road, Middletown, NJ 07748 (US). DELFYETT, Peter, John, Jr. ; 591 Oak Hill Road, Middletown, NJ 07748 (US). HERITAGE, Jonathan, Paul ; 9 Harvest Lane, Tinton Falls, NJ 07701 (US). THURSTON, Robert, Norton ; 40 Squire Terrace, Colts Neck, NJ 07722 (US).</p>	<p>(74) Agents: WINTER, Richard, C. et al.; PCT Int'l, Inc., International Coordinator, Room 2E-304, Bell Communications Research, Inc., 290 West Mount Pleasant Avenue, Livingston, NJ 07039 (US). (81) Designated State: JP.  Published With international search report.</p>	

(54) Title: OPTICAL PULSE-SHAPING DEVICE AND METHOD, AND OPTICAL COMMUNICATIONS STATION AND METHOD

(57) Abstract

For use, e.g., in the compensation of frequency dispersion in the course of transmission of an optical signal, a pulse-shaping device is provided with a suitably shaped nonplanar mirror (16). When spatially spread-out frequency components - produced, e.g., by a grating (14) - are reflected from such mirror, a frequency-dependent phase shift is introduced; for example, such phase shift may be a third-order function of frequency. Upon recombination of frequencies, a shaped pulse is obtained. Furthermore, third-order compensation can be used to compress amplified light pulses, e.g. as produced by a semiconductor gain medium (80, 81).



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